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| 09/583,797 | 05/31/2000 | Rosario A. Uceda-Sosa | POU9-2000-0018-US1 | 9330 |

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| EXAMINER |
|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2127 | 5 |

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| **Office Action Summary** | **Application No.** 09/583,797 | **Applicant(s)** UCEDA-SOSA ET AL. |
| | **Examiner** Lilian Vo | **Art Unit** 2127 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _31 May 2000_ .

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-48_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-48_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

## DETAILED ACTION

1.      Claims 1 – 48 are presented for examination.

## *Claim Rejections - 35 USC § 112*

2.      Claims 19, 20, 32, 33 and 45 - 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 19, 20, 32, 33 and 45 - 46** recite a reference-base relationship, which according to the specification page 12, lines 12 – 13, the resource(s) need to obtain write locking to itself (themselves) and to the referencing resource in order to write to the referencing resource. For the purpose of the examination, the examiner will assume those are typographical error and that locking comprises write locking instead of read locking the resource.

## *Claim Rejections - 35 USC § 102*

3.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.      Claims 1, 4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Leff et al (US 6,275,863, hereafter referred to Leff).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding **claim 1**, a method of managing the locking of resources of a data repository, said method comprising:

determining a relationship between a plurality of resources of said data repository, wherein said relationship is at least one of a containment-based relationship and a reference-based relationship (col. 5, lines 49 – 64, col. 14, lines 14 – 43, figs. 1, 7 and 8); and

locking at least one resource of said plurality of resources based on said relationship (col. 5, lines 49 – 64, figs. 1, 7 and 8).

**Claims 4 and 7** are rejected on the same ground as stated in claim 1 above.

5.      Claims 1 – 9, 10, 22, 23, 35, 36 and 48 are rejected under 35 U.S.C. 102(e) as being anticipated by Soltis et al (US 6,493,804, hereafter referred to Soltis).

Regarding **claim 1**, Soltis discloses a method of managing the locking of resources of a data repository, said method comprising:

determining a relationship between a plurality of resources of said data repository, wherein said relationship is at least one of a containment-based relationship and a reference-based relationship (figs. 5 and 6, col. 5, lines 63 – col. 6, lines 8); and

locking at least one resource of said plurality of resources based on said relationship

(abstract, col. 14, lines 33 – 55, col. 19, lines 15 - 34).

Regarding **claim 2**, Soltis discloses a method of claim 1, wherein said locking of said at

least one resource is performed without locking at least one other resource of said plurality of

resources (col. 3, lines 41 – 64 and col. 18, line 62 – col. 19, line 11).

Regarding **claim 3**, Soltis discloses a method of claim 1, wherein said locking of said at

least one resource is further based on an operation to be performed (abstract, col. 9, lines 42 –

65).

**Claims 4 and 7** are rejected on the same ground as stated in claim 1 above.

**Claims 5 and 8** are rejected on the same ground as stated in claim 2 above.

**Claims 6 and 9** are rejected on the same ground as stated in claim 3 above.

Regarding **claim 10**, Soltis discloses a method of claim 3, wherein the operation

comprises at least one of create, delete, read and write (col. 9, lines 42 – 65, col. 14, lines 33 –

55, col. 19, lines 15 – 34).

Regarding **claim 22**, Soltis discloses the method of claim 1, wherein at least one resource

comprises at least one of a table and a directory (fig. 5).

**Claims 23 and 36** are rejected on the same ground as stated in claim 10 above.

**Claims 35 and 48** are rejected on the same ground as stated in claim 22 above.


*Claim Rejections - 35 USC § 103*

6.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.      Claims 11 – 14, 24 – 27 and 37 - 40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Soltis et al (US 6,493,804, hereafter referred to Soltis) in view of Shaughnessy

(US 5,555,388).

Regarding **claim 11**, Soltis discloses a method of claim 10, wherein the relationship is a

containment-based relationship, wherein the at least one resource comprises a first resource and a

second resource, the first resource referencing the second resource in fig 5, except he did not

clearly specify the locking comprises write locking the first resource in order to create an

instance of the second resource. Nevertheless, Shaughnessy discloses of write locking the first

resource in order to create an instance the second resource (col. 9, line 44 – col. 10, line 37).

Therefore, it would have been obvious for one of ordinary skill in the art, at the time the

invention was made to incorporate this feature to Soltis to prevent other users from changing the

contents of a family of objects (col. 9, lines 66 – col. 10, lines1).

Regarding **claim 12**, Soltis discloses a method of claim 10, wherein the relationship is a

containment-based relationship, wherein the at least one resource comprises a first resource and a

second resource, the first resource referencing the second resource in fig. 5, except he did not

clearly specify the locking comprises write locking the first resource and the second resource in

order to delete an instance of the second resource. Nevertheless, Shaughnessy discloses of write

locking the first resource and the second resource in order to delete an instance the second

resource (col. 9, line 44 – col. 10, line 37). Therefore, it would have been obvious for one of

ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to obtain exclusive access on an object and ensure data consistency.

Regarding **claim 13**, Soltis discloses a method of claim 10, wherein the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource in fig. 5, except he did not clearly specify the locking comprises read locking the second resource in order to read therefrom. Nevertheless, Shaughnessy discloses of read locking the resource in order to read therefrom (col. 9, line 18 – col. 10, line 37 and col. 15, lines 42 - 44). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to provide concurrent access to data.

Regarding **claim 14**, Soltis discloses a method of claim 10, wherein the relationship is a containment-based relationship, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource in fig. 5, except he did not clearly specify the locking comprises write locking the second resource in order to write thereto. Nevertheless, Shaughnessy discloses of write locking the resource in order to write thereto (col. 9, line 18 – col. 10, line 37). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to prevent other users from changing that object in anyway (col. 9, lines 66 – col. 10, line 1).

**Claims 24 – 27 and 37 - 40** are rejected on the same ground as stated in claims 11 – 14 respectively.

8.      Claims 15 –21, 28 – 34 and 41 - 47 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Soltis et al (US 6,493,804, hereafter referred to Soltis) in view of Annevelink

(US 5,448,727).

Regarding **claim 15**, Soltis discloses a method of claim 10, wherein the at least one

resource comprises a first resource and a second resource, the first resource referencing the

second resource in fig. 5, except he did not clearly show the relationship is a reference-based

relationship and the locking comprises write locking the first resource in order to delete the first

resource. Nevertheless, Annevelink discloses of reference-based relationship (col. 18, table 4

and fig. 6) and write locking the object in order to delete the object (col. 12, lines 27 – lines 31,

lines 42 - 63). Therefore, it would have been obvious for one of ordinary skill in the art, at the

time the invention was made to incorporate this feature to Soltis to improve concurrency in

database accesses.

Regarding **claim 16**, Soltis discloses a method of claim 10, wherein the at least one

resource comprises a first resource and a second resource, the first resource referencing the

second resource in fig. 5, except he did not clearly show the relationship is a reference-based

relationship and the locking comprises write locking the first resource in order to create an

instance of the second resource. Nevertheless, Annevelink discloses of reference-based

relationship (col. 18, table 4 and fig. 6) and write locking the object in order to create an instance

of another object (col. 11, lines 36 – 52, col. 12, lines 27 – lines 31, lines 42 – 63, col. 13, lines

25 - 46). Therefore, it would have been obvious for one of ordinary skill in the art, at the time

the invention was made to incorporate this feature to Soltis to improve concurrency in database

accesses.

Regarding **claim 17**, Soltis discloses a method of claim 10, wherein the at least one resource comprises at least one instance of a first resource and a second resource, at least one of the at least one instance of the first resource referencing the second resource in fig. 5, except he did not clearly show the relationship is a reference-based relationship and the locking comprises write locking the at least one of the at least one instance of the first resource in order to delete the second resource. Nevertheless, Annevelink discloses of reference-based relationship (col. 18, table 4 and fig. 6) and write locking the object in order to delete another referencing object (col. 12, lines 27 – lines 31, lines 42 - 63). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to improve concurrency in database accesses.

Regarding **claim 18**, Soltis discloses a method of claim 10, wherein the at least one resource comprises a first resource and a second resource, the first resource referencing the second resource in fig. 5, except he did not clearly show the relationship is a reference-based relationship and the locking comprises read locking the first resource and the second resource in order to read the second resource. Nevertheless, Annevelink discloses of reference-based relationship (col. 18, table 4 and fig. 6) and read locking the object in order to read the object (col. 12, lines 27 – lines 31, lines 42 - 63). It would have obvious for one of ordinary skill in the art to obtain read locking the second resource (the second object) that is being referenced by the first resource (first object) in order to access the second object. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to improve concurrency access to the database.

Regarding **claim 19**, Soltis discloses a method of claim 10, wherein the at least one resource comprises at least one instance of a first resource and a second resource, at least one of the at least one instance of the first resource referencing the second resource in fig. 5, except he did not clearly show the relationship is a reference-based relationship and the locking comprises write locking the second resource and at least one instance of the first resource in order to write to the second resource. Nevertheless, Annevelink discloses of reference-based relationship (col. 18, table 4 and fig. 6) and write locking the object in order to delete another referencing object (col. 12, lines 27 – lines 31, lines 42 - 63). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to improve concurrency in database accesses.

Regarding **claim 20**, Soltis discloses a method of claim 10, wherein the at least one resource comprises a first resource, a second resource and a third resource, the first resource and second resource referencing the third resource in fig. 5, except he did not clearly show the relationship is a reference-based relationship and the locking comprises write locking the first and second resource and write locking the third resource. Nevertheless, Annevelink discloses of reference-based relationship (col. 18, table 4 and fig. 6) and write locking the objects in order to write to the third object (col. 12, lines 27 – lines 31, lines 42 - 63). It would have obvious for one of ordinary skill in the art to obtain write locking the resources (first second and third objects) in order to in order to write to the third object. Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to improve concurrency access to the database.

Regarding **claim 21**, Soltis discloses the method of claim 1, except he did not clearly specify the determining comprises employing a set of policies. Nevertheless, Annevelink discloses of a storage structure that contains the relationships between the objects contained in the domain as well as part of the object directory defining the objects contained in the domain (col. 10, lines 27 – 49). Therefore, it would have been obvious for one of ordinary skill in the art, at the time the invention was made to incorporate this feature to Soltis to assist in finding the necessary information.

**Claims 28 - 34 and 41 - 47** are rejected on the same ground as stated in claims 15 – 21 respectively.

### *Conclusion*

9.      The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is (703) 305-7864.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Lilian Vo
Examiner
Art Unit 2127

lv
October 21, 2003

MAJID A. BANANKHAH
PRIMARY EXAMINER